for at least one year at the end of 1992.[1010] According to the SBA's definition, a wireline telephone company is a small business if it employs no more than 1,500 persons.[1011] All but 26 of the 2,321 wireline companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 wireline companies that might qualify as small entities. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 2,295 of these wireline companies are small entities that this Order may affect. Since 1992, however, many wireline carriers have entered the telephone services marketplace. Many of these new entrants may be small entities that are affected by this Order.

504. Incumbent Local Exchange Carriers. Neither the Commission nor the SBA has developed a definition specifically directed toward small incumbent LECs. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS). According to our most recent data, 1,410 companies reported that they were engaged in the provision of local exchange services.[1012] Although it seems certain that some of these carriers are not independently owned and operated or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of small incumbent LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,410 small incumbent LECs that may be affected by the decisions and rules adopted in this Order.

4. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

505. Pursuant to sections 251(c) and (d) of the 1996 Act, incumbent LECs, including those that qualify as small entities, are required to provide nondiscriminatory access to unbundled network elements.[1013] The only exception to this rule is those carriers that qualify and have gone through the process of obtaining an exemption, suspension or modification pursuant to section 251(f) of the Act. This Order interprets the necessary and impair standards of section 251(d)(2) in such a way that it fulfills the Supreme Court's requirement that we apply some limiting standard to an incumbent

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1010 *1992 Census, supra* note 1008, at Firm Size 1-123.

1011 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

1012 Federal Communications Commission, Carrier Locator: Interstate Service Providers, Fig. 1 (Jan. 1999) (*Carrier Locator Report*).

1013 47 U.S.C. § 251(f).

LEC's 251(c) obligations.[1014] In this Order, we identify a minimum set of network elements that incumbent LECs are obligated to offer to requesting carriers on an unbundled basis nationwide: (1) local loops, including dark fiber and high-capacity loops;[1015] (2) subloops;[1016] (3) network interface devices;[1017] (4) local switching, except under certain conditions;[1018] (5) interoffice transport;[1019] (6) signaling and call-related databases;[1020] (7) operations support systems;[1021] and (8) in very limited situations, packet switching.[1022] State commissions may require incumbent LECs to provide additional network elements on an unbundled basis.[1023] The Order also clarifies that incumbent LECs are obligated to provide access to combinations of loop, multiplexing/concentrating equipment and dedicated transport if they are currently combined. Compliance with the rules and decisions adopted in this Order may require the use of engineering, technical, operational, accounting, billing, and legal skills.

5. Steps Taken to Minimize the Economic Impact of this Order on Small Entities, and Alternatives Considered

506. As we concluded in the original FRFA,[1024] and as discussed more thoroughly above,[1025] we believe that our actions establishing a minimum national list of

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1014 *Iowa Utilities Bd.*, 119 S. Ct. at 734.

1015 *See supra* Section (V)(A).

1016 *See supra* Section (V)(B).

1017 *See supra* Section (V)(C).

1018 *See supra* Section (V)(D). Incumbent LECs must offer unbundled access to local circuit switching, except for switching used to serve end users with four or more lines in access density zone 1 (the densest areas) in the top 50 Metropolitan Statistical Areas (MSAs), provided that the incumbent LEC provides non-discriminatory,cost-based access to the enhanced extended link. (An enhanced extended link (EEL) consists of a combination of an unbundled loop, multiplexing/concentratingequipment, and dedicated transport. The EEL allows new entrants to serve customers without having to collocate in every central office in the incumbent's territory.).

1019 *See supra* Section (V)(E).

1020 *See supra* Section (V)(F).

1021 *See supra* Section (V)(G).

1022 *See supra* Section (V)(D)(2). In circumstances where a requesting carrier is unable to install its DSLAM at the remote terminal or obtain spare copper loops, and the incumbent LEC has deployed packet switching for its own use, an incumbent LEC must provide a requesting carrier with access to unbundled packet switching.

1023 *See supra* Section (IV)(E).

1024 *Local Competition First Report and Order*, 11 FCC Rcd at 16157-58, para. 1364.

unbundled network elements in this Order facilitates the development of competition in the local exchange and exchange access markets. This decision decreases entry barriers and provides reasonable opportunities for all carriers, including small entities, to provide local exchange and exchange access services.

507. National requirements for unbundling allows requesting carriers, including small entities, to take advantage of economies of scale in network. Requesting carriers, which may include small entities, should have access to the same technologies and economies of scale and scope available to incumbent LECs. Having such access will facilitate competition and help lower prices for all consumers, including individuals and small entities. A minimum national list of unbundled network elements also should facilitate the development of consistent standards and help resolve issues without imposing additional litigation costs on parties, including small entities.

508. Establishing a minimum national list of unbundled network elements facilitates negotiations and reduces regulatory burdens for all parties, including small entities. Adopting a national list lowers requesting carrier's cost by enabling them to implement regional and/or national business plans. In reaching this conclusion we considered one proposal to adopt national standards that would be applied by state commissions on a market-by-market basis. We concluded that this approach would lead to greater uncertainty in the market and would hinder the development of competition. We also found that it would complicate the negotiation of interconnection agreements and lead to increased litigation. Furthermore, this approach would increase the administrative burden on state commissions and parties arbitrating interconnection agreements before these state commissions.[1026] All of these factors would slow the development of competition. Therefore we reaffirmed our decision in the *Local Competition First Report and Order* to adopt a national list.

6. Report to Congress

509. The Commission will send a copy of the Third Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.[1027] In addition, the Commission will send a copy of the Third Report and Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. The Third Report and Order and FRFA, or summaries thereof, will also be published in the Federal Register.[1028]

B. Initial Regulatory Flexibility Analysis (IRFA)

1025 *See supra* Section (IV)(D).

1026 *See supra* Section (IV)(E).

1027 *See* 5 U.S.C. § 801(a)(1)(A).

1028 *See* 5 U.S.C. § 604(b).

510. As required by the RFA,[1029] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Fourth Further Notice of Proposed Rulemaking. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Fourth Further Notice of Proposed Rulemaking provided above in section VII. The Commission will send a copy of the Fourth Further Notice of Proposed Rulemaking, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[1030] In addition, the Fourth Further Notice of Proposed Rulemaking and IRFA, or summaries thereof, will be published in the Federal Register.[1031]

1. Need for, and Objectives of, the Proposed Rules

511. In this proceeding commenters have argued that allowing requesting carriers to obtain combinations of loop and transport unbundled network elements based on forward-looking cost would provide opportunities for arbitrage of special access services. We recognize that special access has historically been provided by incumbent LECs at prices that are higher than the unbundled network element pricing scheme of section 252(d)(1). Accordingly, in this Fourth Further Notice, the Commission seeks comment on the legal and policy bases for precluding requesting carriers from substituting dedicated transport for special access entrance facilities. We ask whether there is any basis in the statute or our rules under which incumbent LECs could decline to provide entrance facilities at unbundled network element prices.

512. Finally, because the record developed in the *Further Notice of Proposed Rulemaking* in the *Shared Transport Order* is two years old, we invite parties to refresh the record on whether requesting carriers may use unbundled dedicated or shared transport facilities in conjunction with unbundled switching to originate or terminate interstate toll traffic to customers to whom the requesting carrier does not provide local exchange service.[1032]

2. Legal Basis

513. Sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act, as amended, 47 U.S.C. §§ 151-54, 160, 201, 202, 251-54, 271, and 303(r).

1029 *See supra* note 996.

1030 *See* 5 U.S.C. § 603(a).

1031 *See id.*

1032 *Local Competition Third Reconsideration Order*, 12 FCC Rcd. at 12462, para.3.

3. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

514. In the FRFA in the Third Report and Order, *supra*, we have described the entities possibly affected by that decision.[1033] We anticipate that the same entities, as well as those described below, could be affected by any action taken in response to the Fourth Further Notice. We therefore incorporate the description and estimates used in the FRFA in the Third Report and Order,[1034] and add the following descriptions.

515. *Competitive Local Exchange Carriers*. Neither the Commission nor SBA has developed a definition of small entities specifically directed toward providers of competitive local exchange services. The most reliable source of information regarding the number of competitive LECs nationwide of which we are aware appears to be the data we collected in the August, 1999 *Local Competition Report.* According to our most recent data, 158 companies reported that they were local service competitors holding numbering codes.[1035] Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of competitive LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 158 small entity competitive LECs that may be affected by the decisions and rules adopted in response to the Fourth Further Notice of Proposed Rulemaking.

516. *Competitive Access Providers.* Neither the Commission nor SBA has developed a definition of small entities specifically directed toward providers of competitive access services (CAPs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs nationwide of which we are aware appears to be the data that we collect annually in connection with the *TRS Worksheet.* According to our most recent data, 129 companies reported that they were engaged in the provision of competitive access services.[1036]

1033 *See supra* paras. 500-504.

1034 *See supra* paras. 500-504.

1035 Report, *Local Competition: August 1999*, at 45, Table 4.1 (This report is an update of the *Local Competition Report* issued in December of 1998. The report was compiled by the Industry Analysis Division of the Common Carrier Bureau of the Federal Communications Commission. This report is available in the Commission's Reference Information Center at 445 12th Street, S.W., Courtyard Level, Washington, DC. Copies may be purchased from the International Transcription Services, Inc., at (202) 857-3800. It can also be downloaded, file name LCOMP99-1.PDF or LCOMP99-1ZIP, from the Commission's internet site at http://www.fcc.gov/ccb/stats.)

1036 *Carrier Locator Report* at Fig. 1. This figure also includes competitive LECs, as

Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of competitive LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 129 small entity competitive LECs that may be affected by the decisions and rules adopted in response to the Fourth Further Notice of Proposed Rulemaking.

4. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

517. If the Commission does not establish any restrictions on the use of unbundled network elements or combinations of network elements, no additional compliance requirements are anticipated from further consideration of this issue. If, however, restrictions on access to network elements are imposed, and depending on how the restrictions are imposed, competitive LECs, CAPs and other purchasers of unbundled network elements, including small entities, may be subject to additional reporting, recordkeeping and other compliance requirements. Incumbent LECs, including small incumbent LECs, would also be impacted because they would have to keep track of competitive LEC filings and whether the use of the unbundled network element changed in such a way that a restriction would attach. If restrictions are placed on the use of unbundled network elements or combinations of such elements, compliance with these requests may require the use of engineering, technical, operational, accounting, billing, and legal skills.[1037]

5. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

518. If requesting carriers can substitute unbundled network elements, such as transport, for entrance facilities, incumbent LECs, including small entities, may be significantly economically impacted. On the other hand, substituting unbundled network elements for entrance facilities could benefit competitive LECs, CAPs, and other purchasers of unbundled network elements. The Commission will evaluate in this proceeding whether there are legal grounds for restricting such access. If no such grounds exist, and instead if the statute requires unrestricted access to these unbundled network elements or combinations, then the Commission will have no alternative other than implementation of the statutory requirements for unrestricted access.

6. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

519. None.

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determined by TRS filings.

[1037] *See supra* Section VII.

IX. ADMINISTRATIVE MATTERS

520. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before January 12, 2000 and reply comments on or before February 11, 2000. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24,121 (1998).

521. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address." A sample form and directions will be sent in reply.

522. Parties who choose to file by paper must file an original and four copies of each filing. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus eleven copies. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, TW-A306, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. The Common Carrier Bureau contact for this proceeding is Jodie Donovan-May at 202-418-1580. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number.

523. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to: Jodie Donovan-May, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Word for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number in this case, Docket No. 96-98, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, N.W., Washington, D.C. 20037.

524. *Ex Parte Rules.* This proceeding will be treated as a "permit-but-disclose" proceeding subject of the "permit-but-disclose" requirements under Section 1.1206(b) of the Commission's rules.[1038] Ex parte presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when ex parte or otherwise, are generally prohibited. Person making oral ex parte presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one or two sentence description of the view are arguments presented is generally required.[1039] Additional rules pertaining to oral and written presentations are set forth in Section 1.1206(b).

X. ORDERING CLAUSES

525. Accordingly, IT IS ORDERED that pursuant to Sections 1, 3, 4, 201-205, 251, 256, 271, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 271, 303(r) the THIRD REPORT AND ORDER AND FOURTH FURTHER NOTICE OF PROPOSED RULEMAKING is hereby ADOPTED.

526. IT IS FURTHER ORDERED that § 51.319 of the Commission's Rules , 47 C.F.R. § 51.319, as set forth in Appendix C hereto, is effective 30 days after publication in the Federal Register, with the exception of only the following requirements, which are effective 120 days after publication in the Federal Register: the requirement to provide access on an unbundled basis to dark fiber as set forth in § 51.319(a)(1); the requirement to provide access on an unbundled basis to subloops and inside wire as set forth in § 51.319(a)(2); the requirement to provide access on an unbundled basis to packet switching in the limited circumstances set forth in § 51.319(c)(3)(B); the requirement to provide access on an unbundled basis to dark fiber transport as set forth in § 51.319(d)(1)(B); the requirement to provide access on an unbundled basis to the Calling Name Database, 911 Database, and E911 Database as set forth in §51.319(e)(2)(A); and the requirement to provide access on an unbundled basis to loop qualification information as set forth in § 51.319(g).[1040]

527. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this THIRD REPORT AND ORDER, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

528. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this FOURTH

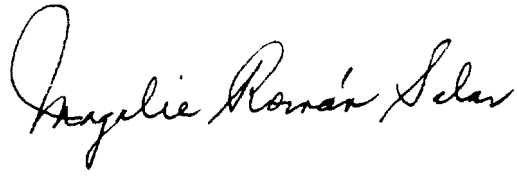
[1038] 47 C.F.R. § 1.1206(b), as revised.

[1039] See id. at § 1.1206(b)(2).

[1040] These delineated requirements were not contained in § 51.319 prior to the rule being vacated by the Supreme Court in *Iowa Utils. Bd.*

FURTHER NOTICE OF PROPOSED RULEMAKING, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas

Secretary

APPENDIX A

List of Commenters in CC Docket No. 96-98

Ad Hoc Telecommunications Users Committee (Ad Hoc)
Allegiance Telecom, Inc. (Allegiance)
Ameritech (Ameritech)
Association for Local Telecommunications Services (ALTS)
AT&T Corp. (AT&T)
Bell Atlantic Telephone Companies (Bell Atlantic)
BellSouth Corporation/BellSouth Telecommunications, Inc. (BellSouth)
Cable and Wireless USA, Inc. (Cable & Wireless)
Centennial Cellular Corporation, CenturyTel Wireless, Inc., Thumb Cellular Limited Partnership, and Trillium Cellular Corporation (Centennial Joint)
Choice One Communications, Network Plus, Inc., GST Telecom Inc., CTSI, Inc., and Hyperion Telecommunications, Inc. (Choice One Joint)
Cincinnati Bell Telephone Company (Cincinnati Bell)
CO Space Services, Inc. (CO Space)
Columbia Telecommunications, Inc. (Columbia)
Competition Policy Institute (CPI)
Competitive Telecommunications Association (CompTel)
Connecticut Department of Public Utility Control (Connecticut DPUC)
Corecomm Limited (Corecomm)
Covad Communications Company (Covad)
Cox Communications, Inc. (Cox)
e.spire Communications, Inc. and Intermedia Communications Inc. (e.spire Joint)
Excel Communications, Inc. (Excel)
Florida Public Service Commission (Florida PSC)
Focal Communications Corporation (Focal)
General Services Administration (GSA)
GTE Service Corporation (GTE)
Illinois Commerce Commission (Illinois Commission)
Information Technology Industry Council (ITIC)
Inline Connection Corporation (Inline)
Iowa Utilities Board (Iowa)
Joint Consumer Advocates (Joint Consumer Advocates)
Kentucky Public Service Commission (Kentucky PSC)
KMC Telecom Inc. (KMC)
Level 3 Communications, Inc. (Level 3)
Low Tech Designs, Inc. (Low Tech)
MCI WorldCom, Inc. (MCI WorldCom)
McLeodUSA Telecommunications Services, Inc. (McLeod)
Mediaone Group, Inc. (Mediaone)
Metro One Telecommunications, Inc. (Metro One)
Metromedia Fiber Network Services, Inc. (MFN)
MGC Communications, Inc. (MGC)

National Association of Regulatory Utility Commissioners (NARUC)
National Telecommunications and Information Administration (NTIA)
Net2000 Communications, Inc. (Net2000)
Network Access Solutions Corporation (NAS)
New England Voice & Data, LLC (New England Voice & Data)
New Jersey Division of the Ratepayer Advocate (New Jersey DRA)
New York State Department of Public Service (New York DPS)
NEXTLINK Communications, Inc. (NEXTLINK)
Northpoint Communications, Inc. (Northpoint)
Ohio Public Utilities Commission (Ohio PUC)
Optel, Inc. (OpTel)
People of the State of California and the California Public Utilities Commission (California PUC)
Pennsylvania Public Utility Commission (Pennsylvania PUC)
Pilgrim Telephone, Inc. (Pilgrim)
Prism Communications Services, Inc. (Prism)
Oregon Public Utility Commission (Oregon PUC)
Qwest Communications Corp. (Qwest)
RCN Telecom Services, Inc. (RCN)
Rhythms Netconnections Inc. (Rhythms)
Rural Telephone Coalition (Rural Telephone Coalition)
SBC Telecommunications, Inc. (SBC)
Sprint Corporation (Sprint)
Strategic Policy Research (SPR)
Telecommunications Resellers Association (TRA)
TelTrust, Inc. (TelTrust)
Teligent, Inc. (Teligent)
Texas Public Utility Commission (Texas PUC)
Time Warner Telecom (Time Warner)
United States Telephone Association (USTA)
US WEST, Inc. (US West)
UTC, The Telecommunications Association (UTC)
Vermont Public Service Board (Vermont PSB)
Waller Creek Communications, Inc. (Waller Creek)
Washington Utilities and Transportation Commission (Washington UTC)
Weingarten, Michael (Weingarten)
WinStar Communications, Inc. (WinStar)
Wisconsin Public Service Commission (Wisconsin PSC)

APPENDIX B

Top 50 Metropolitan Statistical Areas (MSAs)

1. Los Angeles – Long Beach
2. New York
3. Chicago
4. Philadelphia
5. Washington, D.C.
6. Detroit
7. Houston
8. Atlanta
9. Boston
10. Dallas
11. Riverside – San Bernardino
12. Phoenix – Mesa
13. Minneapolis – St. Paul
14. San Diego
15. Orange County
16. Nassau – Suffolk
17. St. Louis
18. Baltimore
19. Pittsburgh
20. Oakland
21. Seattle – Bellevue – Everett

22. Tampa – St. Petersburg – Clearwater
23. Cleveland – Lorain – Elyria
24. Miami
25. Newark
26. Denver
27. Portland – Vancouver
28. San Francisco
29. Kansas City
30. San Jose
31. Cincinnati
32. Fort Worth – Arlington
33. Norfolk – Virginia Beach – Newport News
34. Sacramento
35. San Antonio
36. Indianapolis
37. Orlando
38. Milwaukee – Waukesha
39. Fort Lauderdale
40. Columbus, OH
41. Las Vegas
42. Charlotte – Gastonia – Rock Hill
43. Bergen – Passaic
44. New Orleans
45. Salt Lake City – Ogden
46. Buffalo – Niagara Falls

47. Greensboro – Winston Salem – High Point

48. Nashville

49. Hartford

50. Providence – Fall River – Warwick

Source: March 1999 LERG; USTA UNE Report at I-22.

APPENDIX C

§ 51.317. Standards for Requiring the Unbundling of Network Elements

(a) *Proprietary Network Elements.* A network element shall be considered to be proprietary if an incumbent LEC can demonstrate that it has invested resources to develop proprietary information or functionalities that are protected by patent, copyright or trade secret law. The Commission shall undertake the following analysis to determine whether a proprietary network element should be made available for purposes of section 251(c)(3) of the Act:

(1) Determine whether access to the proprietary network element is "necessary." A network element is "necessary" if, taking into consideration the availability of alternative elements outside the incumbent LEC's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to the network element precludes a requesting telecommunications carrier from providing the services that it seeks to offer. If access is "necessary," then, subject to any consideration of the factors set forth under subsection (c) of this rule, the Commission may require the unbundling of such proprietary network element.

(2) In the event that such access is not "necessary," the Commission may require unbundling subject to any consideration of the factors set forth under subsection (c) of this rule if it is determined that:

(A) The incumbent LEC has implemented only a minor modification to the network element in order to qualify for proprietary treatment;

(B) The information or functionality that is proprietary in nature does not differentiate the incumbent LEC's services from the requesting carrier's services; or

(C) Lack of access to such element would jeopardize the goals of the 1996 Act.

(b) *Non-Proprietary Network Elements.* The Commission shall undertake the following analysis to determine whether a non-proprietary network element should be made available for purposes of section 251(c)(3) of the Act:

(1) Determine whether lack of access to a non-proprietary network element "impairs" a carrier's ability to provide the service it seeks to offer. A requesting carrier's ability to provide service is "impaired" if, taking into consideration the availability of alternative elements outside the incumbent LEC's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer. The Commission will consider the totality of the circumstances to determine whether an alternative to the incumbent LEC's network element is available in such a manner that a requesting carrier can provide service using the alternative. If the Commission determines

that lack of access to an element "impairs" a requesting carrier's ability to provide service, it may require the unbundling of that element, subject to any consideration of the factors set forth under subsection (c).

(2) In considering whether lack of access to a network element materially diminishes a requesting carrier's ability to provide service, the Commission shall consider the extent to which alternatives in the market are available as a practical, economic, and operational matter. The Commission will rely upon the following factors to determine whether alternative network elements are available as a practical, economic, and operational matter:

(A) Cost, including all costs that requesting carriers may incur when using the alternative element to provide the services it seeks to offer;

(B) Timeliness, including the time associated with entering a market as well as the time to expand service to more customers;

(C) Quality;

(D) Ubiquity, including whether the alternatives are available ubiquitously;

(E) Impact on network operations.

(c) In determining whether to require the unbundling of any network element under this rule, the Commission may also consider the following additional factors:

(1) Whether unbundling of a network element promotes the rapid introduction of competition;

(2) Whether unbundling of a network element promotes facilities-based competition, investment, and innovation;

(3) Whether unbundling of a network element promotes reduced regulation;

(4) Whether unbundling of a network element provides certainty to requesting carriers regarding the availability of the element;

(5) Whether unbundling of a network element is administratively practical to apply.

(d) If an incumbent LEC is required to provide nondiscriminatory access to a network element in accordance with § 51.311 and section 251(c)(3) of the Act under § 51.319 or any applicable Commission Order, no state commission shall have authority to determine that such access is not required. A state commission must comply with the standards set forth in this § 51.317 when considering whether to require the unbundling of additional network elements. With respect to any network element which a state commission has required to be unbundled under § 51.317, the state commission retains the authority to subsequently determine, in accordance with the requirements of this rule, that such network element need no longer be unbundled.

§ 51.319 Specific unbundling requirements.

(a) *Local Loop and Subloop.* An incumbent LEC shall provide nondiscriminatory access, in accordance with § 51.311 and section 251(c)(3) of the Act, to the local loop and subloop, including inside wiring owned by the incumbent LEC, on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service.

(1) *Local Loop.* The local loop network element is defined as a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at an end-user customer premises, including inside wire owned by the incumbent LEC. The local loop network element includes all features, functions, and capabilities of such transmission facility. Those features, functions, and capabilities include, but are not limited to, dark fiber, attached electronics (except those electronics used for the provision of advanced services, such as Digital Subscriber Line Access Multiplexers), and line conditioning. The local loop includes, but is not limited to, DS1, DS3, fiber, and other high capacity loops.

(2) *Subloop.* The subloop network element is defined as any portion of the loop that is technically feasible to access at terminals in the incumbent LEC's outside plant, including inside wire. An accessible terminal is any point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole or pedestal, the network interface device, the minimum point of entry, the single point of interconnection, the main distribution frame, the remote terminal, and the feeder/distribution interface.

(A) *Inside Wire.* Inside wire is defined as all loop plant owned by the incumbent LEC on end-user customer premises as far as the point of demarcation as defined in § 68.3, including the loop plant near the end-user customer premises. Carriers may access the inside wire subloop at any technically feasible point including, but not limited to, the network interface device, the minimum point of entry, the single point of interconnection, the pedestal, or the pole.

(B) *Technical feasibility.* If parties are unable to reach agreement, pursuant to voluntary negotiations, as to whether it is technically feasible, or whether sufficient space is available, to unbundle the subloop at the point where a carrier requests, the incumbent LEC shall have the burden of demonstrating to the state, pursuant to state arbitration proceedings under section 252 of the Act, that there is not sufficient space available, or that it is not technically feasible, to unbundle the subloop at the point requested.

(C) *Best practices.* Once one state has determined that it is technically feasible to unbundle subloops at a designated point, an incumbent LEC in any state shall have the burden of

demonstrating, pursuant to state arbitration proceedings under section 252 of the Act, that it is not technically feasible, or that sufficient space is not available, to unbundle its own loops at such a point.

(D) *Rules for collocation.* Access to the subloop is subject to the Commission's collocation rules at §§ 51.321-323.

(E) *Single point of interconnection.* The incumbent LEC shall provide a single point of interconnection at multi-unit premises that is suitable for use by multiple carriers. This obligation is in addition to the incumbent LEC's obligation to provide nondiscriminatory access to subloops at any technically feasible point. If parties are unable to negotiate terms and conditions regarding a single point of interconnection, issues in dispute, including compensation of the incumbent LEC under forward-looking pricing principles, shall be resolved under the dispute resolution processes in section 252 of the Act.

(3) Line conditioning. The incumbent LEC shall condition lines required to be unbundled under this section wherever a competitor requests, whether or not the incumbent LEC offers advanced services to the end-user customer on that loop.

(A) Line conditioning is defined as the removal from the loop of any devices that may diminish the capability of the loop to deliver high-speed switched wireline telecommunications capability, including xDSL service. Such devices include, but are not limited to, bridge taps, low pass filters, and range extenders.

(B) Incumbent LECs shall recover the cost of line conditioning from the requesting telecommunications carrier in accordance with the Commission's forward-looking pricing principles promulgated pursuant to section 252(d)(1) of the Act.

(C) Incumbent LECs shall recover the cost of line conditioning from the requesting telecommunications carrier in compliance with rules governing nonrecurring costs in § 51.507(e).

(D) In so far as it is technically feasible, the incumbent LEC shall test and report trouble for all the features, functions, and capabilities of conditioned lines, and may not restrict testing to voice-transmission only.

(b) *Network Interface Device.* An incumbent LEC shall provide nondiscriminatory access, in accordance with § 51.311 and section 251(c)(3) of the Act, to the network interface device on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service. The network interface device network element is defined as any means of interconnection of end-user customer premises wiring to the incumbent LEC's distribution plant, such as a cross connect device used for that purpose. An incumbent LEC shall permit a requesting

telecommunications carrier to connect its own loop facilities to on-premises wiring through the incumbent LEC's network interface device, or at any other technically feasible point.

(c) *Switching Capability.* An incumbent LEC shall provide nondiscriminatory access, in accordance with § 51.311 and section 251(c)(3) of the Act, to local circuit switching capability and local tandem switching capability on an unbundled basis, except as set forth in § 51.319(c)(1)(B), to any requesting telecommunications carrier for the provision of a telecommunications service. An incumbent LEC shall be required to provide nondiscriminatory access in accordance with § 51.311 and section 251(c)(3) of the Act to packet switching capability on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service only in the limited circumstance described in § 51.319(c)(3)(B).

(1)(A) *Local Circuit Switching Capability, including Tandem Switching Capability.* The local circuit switching capability network element is defined as:

(i) Line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card;

(ii) Trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and

(iii) All features, functions and capabilities of the switch, which include, but are not limited to:

(1) The basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the incumbent LEC's customers, such as a telephone number, white page listing and dial tone, and

(2) All other features that the switch is capable of providing, including but not limited to, customer calling, customer local area signaling service features, and Centrex, as well as any technically feasible customized routing functions provided by the switch.

(B) Notwithstanding the incumbent LEC's general duty to unbundle local circuit switching, an incumbent LEC shall not be required to unbundle local circuit switching for requesting telecommunications carriers when the requesting telecommunications carrier serves end-users with four or more voice grade (DS0) equivalents or lines, and the incumbent LEC's local circuit switches are located in:

(i) The top 50 Metropolitan Statistical Areas as set forth in Appendix B of the *Third Report and Order and Fourth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98, and

(ii) In Density Zone 1, as defined in § 69.123 on January 1, 1999.

(2) *Local Tandem Switching Capability.* The tandem switching capability network element is defined as:

(A) Trunk-connect facilities, which include, but are not limited to, the connection between trunk termination at a cross connect panel and switch trunk card;

(B) The basic switch trunk function of connecting trunks to trunks; and

(C) The functions that are centralized in tandem switches (as distinguished from separate end office switches), including but not limited, to call recording, the routing of calls to operator services, and signaling conversion features.

(3) *Packet Switching Capability.* (A) The packet switching capability network element is defined as the basic packet switching function of routing or forwarding packets, frames, cells or other data units based on address or other routing information contained in the packets, frames, cells or other data units, and the functions that are performed by Digital Subscriber Line Access Multiplexers, including but not limited to:

(i) The ability to terminate copper customer loops (which includes both a low band voice channel and a high-band data channel, or solely a data channel);

(ii) The ability to forward the voice channels, if present, to a circuit switch or multiple circuit switches;

(iii) The ability to extract data units from the data channels on the loops, and

(iv) The ability to combine data units from multiple loops onto one or more trunks connecting to a packet switch or packet switches.

(B) An incumbent LEC shall be required to provide nondiscriminatory access to unbundled packet switching capability only where each of the following conditions are satisfied:

(i) The incumbent LEC has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities in the distribution section (*e.g.*, end office to remote terminal, pedestal or environmentally controlled vault);

(ii) There are no spare copper loops capable of supporting the xDSL services the requesting carrier seeks to offer;

(iii) The incumbent LEC has not permitted a requesting carrier to deploy a Digital Subscriber Line Access Multiplexer at the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these subloop interconnection points as defined by § 51.319(b); and

(iv) The incumbent LEC has deployed packet switching capability for its own use.

(d) *Interoffice Transmission Facilities.* An incumbent LEC shall provide nondiscriminatory access, in accordance with § 51.311 and section 251(c)(3) of the Act, to interoffice transmission facilities on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service.

(1) Interoffice transmission facility network elements include:

(A) Dedicated transport, defined as incumbent LEC transmission facilities, including all technically feasible capacity-related services including, but not limited to, DS1, DS3 and OCn levels, dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers;

(B) Dark fiber transport, defined as incumbent LEC optical transmission facilities without attached multiplexing, aggregation or other electronics;

(C) Shared transport, defined as transmission facilities shared by more than one carrier, including the incumbent LEC, between end office switches, between end office switches and tandem switches, and between tandem switches, in the incumbent LEC network.

(2) The incumbent LEC shall:

(A) Provide a requesting telecommunications carrier exclusive use of interoffice transmission facilities dedicated to a particular customer or carrier, or use the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier.

(B) Provide all technically feasible transmission facilities, features, functions, and capabilities that the requesting telecommunications carrier could use to provide telecommunications services;

(C) Permit, to the extent technically feasible, a requesting telecommunications carrier to connect such interoffice facilities to equipment designated by the requesting telecommunications carrier, including but not limited to, the requesting telecommunications carrier's collocated facilities; and

(D) Permit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's digital cross-connect systems in the same manner that the incumbent LEC provides such functionality to interexchange carriers.

(e) *Signaling Networks and Call-Related Databases.* An incumbent LEC shall provide nondiscriminatory access, in accordance with § 51.311 and section 251(c)(3) of the Act, to signaling networks, call-related databases, and service management systems on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service.

(1) *Signaling Networks*: Signaling networks include, but are not limited to, signaling links and signaling transfer points.

(A) When a requesting telecommunications carrier purchases unbundled switching capability from an incumbent LEC, the incumbent LEC shall provide access from that switch in the same manner in which it obtains such access itself.

(B) An incumbent LEC shall provide a requesting telecommunications carrier with its own switching facilities access to the incumbent LEC's signaling network for each of the requesting telecommunications carrier's switches.

This connection shall be made in the same manner as an incumbent LEC connects one of its own switches to a signaling transfer point.

(2) *Call-Related Databases*: Call-related databases are defined as databases, other than operations support systems, that are used in signaling networks for billing and collection, or the transmission, routing, or other provision of a telecommunications service.

(A) For purposes of switch query and database response through a signaling network, an incumbent LEC shall provide access to its call-related databases, including but not limited to, the Calling Name Database, 911 Database, E911 Database, Line Information Database, Toll Free Calling Database, Advanced Intelligent Network Databases, and downstream number portability databases by means of physical access at the signaling transfer point linked to the unbundled databases.

(B) Notwithstanding the incumbent LEC's general duty to unbundle call-related databases, an incumbent LEC shall not be required to unbundle the services created in the AIN platform and architecture that qualify for proprietary treatment.

(C) An incumbent LEC shall allow a requesting telecommunications carrier that has purchased an incumbent LEC's local switching capability to use the incumbent LEC's service control point element in the same manner, and via the same signaling links, as the incumbent LEC itself.

(D) An incumbent LEC shall allow a requesting telecommunications carrier that has deployed its own switch, and has linked that switch to an incumbent LEC's signaling system, to gain access to the incumbent LEC's service control point in a manner that allows the requesting carrier to provide any call-related database-supported services to customers served by the requesting telecommunications carrier's switch.

(E) An incumbent LEC shall provide a requesting telecommunications carrier with access to call-related databases in a manner that complies with section 222 of the Act.

(3) *Service Management Systems*:

(A) A service management system is defined as a computer database or system not part of the public switched network that, among other things:

(1) Interconnects to the service control point and sends to that service control point the information and call processing instructions needed for a network switch to process and complete a telephone call; and

(2) Provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

(B) An incumbent LEC shall provide a requesting telecommunications carrier with the information necessary to enter correctly, or format for entry, the information relevant for input into the incumbent LEC's service management system.

(C) An incumbent LEC shall provide a requesting telecommunications carrier the same access to design, create, test, and deploy Advanced Intelligent

Network-based services at the service management system, through a service creation environment, that the incumbent LEC provides to itself.

(D) An incumbent LEC shall provide a requesting telecommunications carrier access to service management systems in a manner that complies with section 222 of the Act.

(f) *Operator Services and Directory Assistance.* An incumbent LEC shall provide nondiscriminatory access in accordance with § 51.311 and section 251(c)(3) of the Act to operator services and directory assistance on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service only where the incumbent LEC does not provide the requesting telecommunications carrier with customized routing or a compatible signaling protocol. Operator services are any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call. Directory assistance is a service that allows subscribers to retrieve telephone numbers of other subscribers.

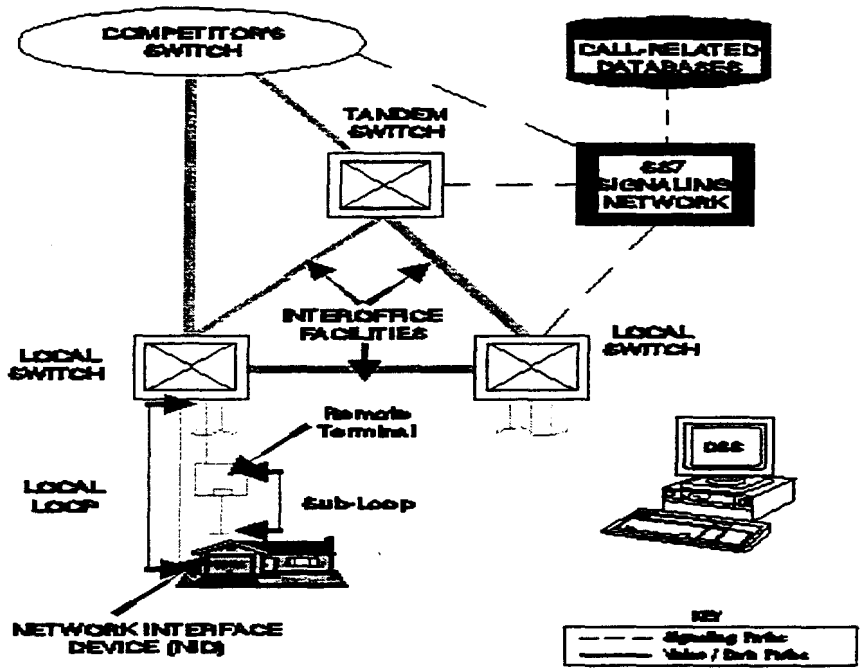
(g) *Operations Support Systems*: An incumbent LEC shall provide nondiscriminatory access in accordance with § 51.311 and section 251(c)(3) of the Act to operations support systems on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service. Operations support system functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information. An incumbent LEC, as part of its duty to provide access to the pre-ordering function, must provide the requesting carrier with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent LEC.

§ 51.5 Terms and definitions.

Pre-ordering and ordering. Pre-ordering and ordering includes the exchange of information between telecommunications carriers about: current or proposed customer products and services; or unbundled network elements, or some combination thereof. This information includes loop qualification information, such as the composition of the loop material, including but not limited to: fiber optics or copper; the existence, location and type of any electronic or other equipment on the loop, including but not limited to, digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; the loop length, including the length and location of each type of transmission media; the wire gauge(s) of the loop; and the electrical parameters of the loop, which may determine the suitability of the loop for various technologies.

APPENDIX D

CURRENT UNBUNDLED NETWORK ELEMENTS



Separate Statement
of
Commissioner Susan Ness

Re: Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98

Local competition is the cornerstone of the Telecommunications Act of 1996 (the Act). Under section 251 of the Act, Congress facilitated the transition from a monopoly to a competitive market for telecommunications services by creating three vehicles for entry: reselling the services of the incumbent local exchange carrier (ILEC) at retail prices less avoided costs; leasing one or more "unbundled network elements" (UNEs) from the ILEC at wholesale discounts; and offering facilities-based competition. Policy makers assumed -- but did not require -- that most new competitors would migrate over time to their own facilities as equipment availability and customer demand warranted. Initially, however, new entrants would need to use piece-parts of the incumbent's network to establish a foothold in a market.

Just over three years ago, in our *Local Competition Order,* I voted to "unbundle" seven network elements under section 251(d)(2) of the Act. In January, the Supreme Court remanded to the Commission that section of our order dealing with unbundled network elements, finding that we had not adequately considered the "necessary and impair" standard when we gave competitors "blanket access" to the incumbents' networks.[1]

In August of 1996, with little local competition on the horizon, we took an expansive view of what new entrants would need to jumpstart competition and a narrow view of the limitations embodied in section 251(d)(2). Today, with three years of experience to guide us, we have crafted a standard that balances the need to jumpstart competition with the need to preserve incumbent incentives to innovate and invest in new facilities. The analytical framework we adopt today facilitates efficient rather than inefficient competition – as Congress intended.

Our new standard reconfigures the national list by paring down some elements and bolstering others. I write separately to elaborate on a few key points.

Advanced Services

I support our decision not to require unbundling of facilities used to provide advanced services, such as packet switches and DSLAMs. Incumbents argue that, if forced to unbundle such facilities, incumbents would have no incentive to deploy these new broadband networks in

[1] AT&T v. Iowa Utils. Bd., 119 S.Ct. 721 (1999).

rural areas.[2] In many *urban* markets, we have witnessed competition from cable providers and other new entrants propel local exchange carriers to roll out xDSL service. But I am concerned about the limited availability of advanced services in rural America today. Advanced services are a key to rural economic renaissance, because they enable entrepreneurs to establish new businesses literally anywhere and strengthen the economic viability of established enterprises. If the incumbents are correct that unbundling inhibits investment in these areas, then I expect -- as a result of our action today -- to see a surge in incumbent investment in facilities to provide advanced services to our rural communities.

Unbundled Local Switching

I support the majority's decision to "carve out" an exemption from the general unbundling requirement for switches serving dense, urban markets. Lack of access to unbundled switching should not impair the ability of new entrants to provide service in these markets, especially if those competitors are targeting large and medium size businesses. Indeed, evidence in the record shows that most of the competitive facilities-based deployment has occurred in precisely these high-density zones. Although no fit will ever be perfect, we have given careful consideration to areas where competitors are self-provisioning or where there is a possibility that competitors can purchase from another provider -- two of the key factors that the Supreme Court said we failed to consider in our initial decision.[3]

I have reservations, however, about the decision to require unbundling for small businesses with three lines or less. While I want to ensure that small businesses also have a choice of providers, I am concerned that adding additional unbundling requirements in high density areas is not the best way to address the problem. A policy based on the number of telephone lines a customer orders could create consumer confusion and be an administrative nightmare. What happens, for example, if the number of lines that a small business orders fluctuates seasonally (*e.g.*, during the holiday season)? I fear that tracking the number of lines in this manner imposes significant administrative costs on carriers and is potentially unenforceable. I am also concerned about undercutting those providers that have deployed their own switches and want to serve the small business community.

In addition, unlike the majority, I would have required access to unbundled switching for *all* residences, rather than only those with three lines or less. There are instances where multiple families live together in a single residence, or students – all of who order their own telephone

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[2] *See* Comments of US West, at 60 (arguing that unbundling advanced services elements would have a "dampening effect on the incentives of both CLECs and ILECs to invest and innovate in advanced services technologies, particularly in high-cost areas"); Comments of SBC, at 76-77 (warning that "consumers are harmed when new technologies never enter the market because of disincentives created by a regulatory regime"); Comments of Bell Atlantic, at 43-44 (arguing that unbundling obligations for advanced services equipment would reduce incentives for incumbents to invest in such equipment); Comments of GTE, at 80 (stating that an unbundling rule for advanced services elements would "result in less innovation and [would] deprive consumers of valuable new services"). *See also* Comments of USTA, at 40-42 (stating that an ILEC would be "unlikely to invest in deployment of new broadband networks and services if it knows that the Commission will [require unbundling]").

[3] *See* 119 S.Ct. at 735.

lines – share accommodations. Surely these instances meet the definition of "mass market" and should not be excluded from the exception.

Operator Services and Directory Assistance (OS/DA)

I am delighted that third-party providers of OS/DA are emerging to fill an increasing need for OS/DA services. However, the Act does not require incumbents to provide these third-party providers with nondiscriminatory access to directory databases.[4] This clearly hampers their ability to provide reliable directory assistance to those carriers that will now need to rely on a non-incumbent source for their OS/DA. I recognize that we have raised this issue in the context of another proceeding, which I hope will be resolved shortly.

Combinations of UNEs and Special Access

The order defers decision on whether there should be limited use restrictions for certain combinations of UNEs to avoid an opportunity for arbitrage for special access. While I agree that we should develop a fuller record on this issue, I am hesitant to start down the slippery slope of adopting use restrictions on UNEs. Nevertheless, I will withhold final judgment on these issues until I have reviewed the record developed in response to the Further Notice. I am particularly interested in finding out whether restricted use of UNE combinations might inadvertently lead to inefficient or unreliable network configurations.

Conclusion

We have adopted a workable framework that takes into account variations in the way that competition is developing in different areas of the country. We have reaffirmed the benefit of a national policy that provides competitors with the certainty they need to develop business plans and raise capital, and reduces the opportunity for further protracted litigation. As competition continues to take hold, we intend to scale back our unbundling requirements even further. Now that the new rules are in place, I urge all players to move beyond litigation and to embrace competition.

[4] 47 U.S.C. § 251(b)(3).

SEPARATE STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH, CONCURRING IN PART AND DISSENTING IN PART

Re: Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket 96-98.

I concur in the result reached by today's Order. Although I would not have interpreted section 251(d)(2) as the Commission has chosen to do, I believe that the statutory language is flexible enough to encompass the Commission's approach.[1] I emphasize, however, that there is much in the detailed and lengthy language of this Order that I cannot endorse. I would have preferred to adopt a far simpler set of unbundling requirements, based on a far more transparent analysis of the record. In my view, the Commission should exercise the authority that it has to establish nationwide unbundling requirements with the utmost circumspection, brevity, and clarity. The elaborate unbundling rules set forth in this Order are out of keeping with this principle. Complex rules benefit neither incumbent nor competing carriers. Rather, complexity leads to uncertainty and litigation, and in the end, the biggest losers will be the American consumers. It would therefore have been much better for us to have left many of the difficult matters that the Order purports to resolve to the negotiation and arbitration processes of section 252. State commissions are better equipped to address these intricate and individualized issues.

I also write to express my disagreement with three particular issues that I believe the Commission has incorrectly resolved.

The Commission Has Adopted an Inappropriate Exception to the Switching Unbundling Requirements. I concur in the Commission's conclusion that, outside of certain densely populated areas (*e.g.*, "density zone 1" of the top 50 metropolitan statistical areas in the country), local circuit switching should be unbundled nationwide on the basis of section 251(d)(2).

Within these densely populated areas, however, I do not believe that the Commission has articulated a defensible explanation why, consistent with section 251(d)(2), switching is to be available as an unbundled element in some peculiar circumstances, but not in others. In my

[1] The Commission's current understanding of section 251(d)(2) is a substantial improvement over its previous construction of this provision. However, although this interpretation may be adequate, I believe that section 251(d)(2) could be understood in a clearer and more economically consistent way. At a future date, therefore, I will comment more extensively on an economic framework for section 251(d)(2) that will complement the standard that the Commission adopts today. I do not endorse all of the concepts or discussion in this Order, but I concur in the basic notion that impairment should be grounded in materiality of harm and applied based on a national list.

view, the "impair" standard adopted today is flexible enough to permit the Commission to have come down either way on the question whether to require the unbundling of switching in densely populated areas. The record reveals that competitive carriers have deployed many switching facilities with significant capacity in many densely populated areas,[2] and it further shows that these carriers can use these switches to provide service to *all* classes of customers, regardless of the number of lines a customer has and regardless of whether the enhanced extended link ("EEL") is available. At the very least, this deployment demonstrates that self-provisioning of switching is feasible in densely populated areas, and therefore, as Commissioner Powell observes, switching may not merit designation as an unbundled element in these regions. At the same time, however, it at least conceivable that under the "impair" standard some competitive carriers would face material differences in cost unless switching is unbundled, although such a determination must be grounded in facts. Although I do not think that such facts are in the record before us, I am willing to entertain the possibility that they might be established.

I cannot agree, however, that the "impair"standard is so malleable that the Commission may predicate the unbundling of a network element on the individual circumstances of an incumbent or competing carrier. Indeed, in other parts of the order, the Commission properly rejects the notion that unbundling should be required based on individual determinations of impairment, citing administrative and other concerns. *See UNE Remand Order* ¶ 66. Yet, despite this conclusion, the Commission chooses to base the availability of switching as a network element on whether an incumbent carrier has made available the EEL. Conditioning the availability of a network element in this way will result only in unproductive litigation and needless administrative expenses to determine whether the condition has been satisfied. I also share Commissioner Powell's view that this aspect of the order may reflect an attempt to circumvent litigation that is currently pending in the United States Court of Appeals for the Eighth Circuit, which is considering whether the EEL may be deemed a network element under section 251(c)(3).

In addition, I do not believe that section 251(d)(2) permits the Commission to define switching as an unbundled element based on the number of lines that serve an individual customer. We have before us no clear evidence that there are *material*, switching-related differences in the cost of serving customers with different numbers of lines. Certainly, there is no basis whatsoever for concluding there are *material* differences in the cost of providing switching to customers with three lines, rather than four. I therefore cannot approve of the Commission's conclusion that carriers in densely populated areas will be impaired in their ability to offer local telephone service to customers with three or fewer lines unless they have access to local circuit switching.

Moreover, I think that basing the availability of a network element on the identity of the ultimate retail customer may well violate section 251(c)(3)'s requirement that access to

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[2] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, ¶¶ 282-283 (1999) (hereinafter "*UNE Remand Order*").

network elements be provided on a "nondiscriminatory" basis. From a technological and economic perspective, there is no difference between a carrier that serves four one-line customers and a carrier that serves one four-line customer. There is consequently no reason to discriminate between the two carriers by giving the first access to local circuit switching, but denying such access to the second.

Finally, the administrative costs of implementing and enforcing the Commission's meaningless distinction between three- and four-line customers are daunting. Because of differences in billing arrangements and the availability of bundled service offerings, it is often difficult (if not impossible) to determine exactly how many lines a given customer has. If there are price advantages associated with having fewer than four lines, enterprising customers may well discover ways of appearing to have fewer than four lines. And even if it were possible to know how many lines a customer has, there are substantial administrative costs associated with keeping track of a customer's number of lines, and correspondingly, determining the network elements to which a competing carrier has access. The Commission offers no explanation how it plans to enforce the three-line restriction. How does it propose to handle the problem of a small business customer served by a competitor that has purchased unbundled switching from an incumbent, when that business decides to add a line, bringing its total number of lines from three to four? Does the Commission intend itself to monitor the market to determine whether switching should be unbundled as to a particular end user? Does it intend for State commissions to undertake this oversight function?

In light of these legal and logistical difficulties, the appropriate course would have been simply to make switching available or unavailable as a network element in densely populated areas. I therefore dissent from the Commission's decision to require unbundling of local circuit switching for requesting carriers in densely populated areas under the particular circumstances adopted today.

The Further Notice of Proposed Rulemaking Is Unwarranted. The Commission seeks further comment on whether it should impose restrictions on the use of the enhanced extended link for the provision of access services from an interexchange carrier's point of presence to an end user. *See UNE Remand Order* ¶¶ 493-498. The concern is that competitors may purchase unbundled local loops and local transport at cost-based rates, combine these elements, and offer the combinations to customers as a substitute for the existing special access services they purchase from incumbents. In *ex parte* filings submitted to the Commission in late summer, various parties urged the Commission to restrict the uses to which competitors may put these combinations, to prevent competitors from undercutting the prices charged for special access services (which traditionally have included subsidies used to support universal service).[3]

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[3] *See* Letter from David G. Frolio, Attorney, BellSouth, to Lawrence F. Strickling, Common Carrier Bureau, Federal Communications Commission, CC Docket 96-98 (filed Aug. 9, 1999); Letter from Michael E. Grambow, Vice President and General Counsel, SBC, to Lawrence F. Strickling, Common Carrier Bureau, Federal Communications Commission, CC Docket 96-98 (filed Aug. 11, 1999); Letter from Edward D. Young, III, Senior Vice President and Deputy General Counsel, Bell Atlantic, Heather B. Gold, Vice President – Industry Policy, Intermedia Communications Inc., Robert W. McCausland, Vice President – Regulatory and Interconnection,

As an initial matter, I believe that Congress intended for the Commission to implement section 251's requirements expeditiously and in a single proceeding - and then leave the market alone to function without government interference. To the extent that the Commission implements section 251 in a piecemeal fashion, as it apparently proposes to do,[4] incumbent and competing local exchange carriers lack clear guidelines and certainty regarding their obligations and rights under the 1996 Act. I therefore object to the Commission's Further Notice of Proposed Rulemaking as improperly drawing out the process of implementing section 251.

In any event, the Further Notice is unnecessary, since the statute supplies no basis for restricting a competitor's use of any network element or combination of network elements. The Commission resolved this very question in the *Local Competition First Report and Order*, and there is no reason to revisit the conclusion that we reached there. In the *Local Competition First Report and Order*, the Commission observed that section 251(c)(3) places no restriction on the uses to which a requesting carrier may put an unbundled network element.[5] Nor does the Act authorize the Commission to limit the ways in which a requesting carrier may use an incumbent's network elements. Section 251(c)(3) simply imposes on incumbents the duty to give requesting carriers nondiscriminatory access to unbundled network elements "for the provision of a telecommunications service." 47 U.S.C. § 251(c)(3). Thus, so long as a competitor uses unbundled network elements to provide "a telecommunications service" - and exchange access service is inarguably a telecommunications service - that use is permissible under section 251(c)(3).

To the extent that incumbent carriers are worried that competitors will be able to offer combinations of network elements at prices that undercut the prices of incumbents' special access services, that problem results not from the Commission's local competition regulations, but from the structure of implicit access charges. As the Commission has recognized, requiring incumbents to include in their prices for access services implicit subsidies (as incumbents historically have been required to do) may place incumbents at a competitive

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Allegiancetelecom, Inc., & Don Shepheard, Vice President, Federal Regulatory Affairs, Time Warner Telecom, to William E. Kennard, Chairman, and Commissioners, Federal Communications Commission, CC Docket 96-98 (filed Sept. 2, 1999).

[4] For example, in March 1999, the Commission asked for comment on whether section 251(c)(3) requires an incumbent carrier to offer competitors access to the high frequency portions of the incumbent's local loops (a technology known as "line sharing" or "spectrum unbundling"). *See Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 ¶¶ 92-107 (Mar. 31, 1999). In my view, it would have been preferable to have consolidated the line-sharing issue into this proceeding.

[5] *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket 96-98, First Report and Order, 11 FCC Rcd 15499, 15679 [¶ 356] (1997) (hereinafter *Local Competition First Report and Order*).

disadvantage.[6] But the solution to this problem lies not in imposing restrictions on competitors' uses of network combinations. Rather, the Commission should promptly revise its rules for access charges. *See Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393, 425 (5th Cir. 1999).

Not only would limiting competing carriers' use of network elements be inconsistent with the statute, but also it would be bad policy. Congress did not intend for the Commission or state regulators to waste their resources policing the uses to which competitors put network elements.

The Commission's Decision To Review Its National List of Network Elements Every Three Years Is Illegal. The Commission announces that it plans to reexamine the list of network elements that are subject to the Act's unbundling requirements every three years, beginning, presumably, in 2002. *See UNE Remand Order* ¶ 152. The Commission ignores entirely section 11's requirement that, "in *every* even-numbered year," the Commission is required to "review *all* regulations issued under this Act in effect at the time of the review that apply to the operations or activities of any provider of telecommunications service" in order to determine whether those regulations continue to serve the public interest. 47 U.S.C. § 161(a) (emphasis added). Section 11 further directs the Commission to "repeal or modify any regulation" it determines is no longer necessary in the public interest. *Id.* § 161(b). The next biennial review process will occur in 2000.

By its plain terms, section 11 applies to *all* regulations issued under the Communications Act, *including* the unbundling requirements that the Commission adopts today. The Commission has no authority to ignore this requirement, even if it thinks such review is unneeded. To be sure, in its 2000 biennial review, the Commission might appropriately consider the short time the unbundling regulations had been in effect in assessing whether these requirements continue to serve the public interest. But it may not simply rewrite the law to suit its purposes.

[6] *Local Competition First Report and Order*, 11 FCC Rcd at 15506 [¶ 5].

November 3, 1999

STATEMENT OF COMMISSIONER MICHAEL K. POWELL, DISSENTING IN PART

Re: *Third Report and Order and Fourth Further Notice of Proposed Rulemaking, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 (CC Docket No. 96-98)*

As I have tried to impress on many occasions,[1] the Supreme Court gave us a tall order in *AT&T Corp. v. Iowa Utilities Bd.*[2] The Court rejected the previous Commission's decision to provide competitive carriers with unbridled access to every element of the incumbent's network at steeply discounted, cost-based prices. In particular, the Court rejected the previous Commission's presumption in favor of unbundling the entire incumbent network, subject to potential exclusions that, in any event, never materialized.[3] That approach, the Court admonished, gave no effect to the limiting "necessary" and "impair" standards of section 251(d)(2). In place of this presumption, the Court ordered the Commission to surmount a high factual hurdle: the burden of demonstrating that each network element is unbundled only to the extent that, without it, competitive local exchange carriers (CLECs) would be impaired from providing service.[4]

I think the Commission has gone quite far in demonstrating that some CLECs would be impaired if denied access to several elements of the incumbent's network. As such, I support much of this action. I believe we have failed, however, to demonstrate this with respect to switching functionality. I believe, furthermore, that the shortcomings of our attempt to apply the statutory standard to switching reveal more general and serious flaws in the type of impairment analysis we adopt here. Thus, I must respectfully dissent in part from this decision.

The Commission Has Failed to Meet Its Burden of Showing That Failure to Unbundle Switching Would Impair CLECs from Providing Service

I sincerely applaud my colleagues for the steps they have taken to consider the availability of switching outside the incumbent's network, including self-provisioning. It is on the basis of many of these steps that I am able to support much of the decision in this

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1 *See, e.g., Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* CC Docket No. 96-98, Second Further Notice of Proposed Rulemaking, FCC 99-70 (rel. Apr. 16, 1999) (statement of Commissioner Powell, dissenting in part).

2 *See AT&T Corp. et al. v. Iowa Utils. Bd. et al.*, 119 S. Ct. 721 (1999).

3 *Id.* at 736 (holding Commission erroneously perceived a general obligation to unbundle that it could soften by "regulatory grace"). As the Supreme Court indicated, the previous Commission provided "blanket access" virtually all significant elements of the incumbent's network. *Id.* at 735.

4 *See cf.* 119 S. Ct. 721, 736 ("Section 251(d)(2) does not authorize the Commission to create isolated exemptions from some underlying duty to make all network elements available. It requires the Commission to determine on a rational basis which network elements must be made available, taking into account the objectives of the Act and giving some substance to the 'necessary' and "impair' requirements.").

area. For my part, however, I do not believe the Commission has met its burden of showing that failure to unbundle switching would impair CLECs from providing service in the densest areas of the largest markets. Thus, I would have been prepared to leave switching off the unbundling list for the provision of service to all customers in access Zone 1, regardless of their size or type, and regardless of whether the incumbent is providing the "extended link" or EEL.

As the record amply demonstrates, the vast majority of CLEC switches are concentrated in these zones,[5] amounting to multiple companies providing switch-based alternative service in the market. The tele-density in these zones, moreover, suggests that if CLECs chose to, they could economically serve relatively significant numbers of residential customers in these zones, particularly in multiple dwelling units (MDUs). Additionally, in light of the existence of special access service and our related decisions today regarding loop and transport, CLECs can potentially serve many residential and other customers even beyond Zone 1. Based on the evidence showing significant CLEC deployment using their own switches, I am unpersuaded that CLECs are materially impaired if they cannot obtain unbundled switching in Zone 1.[6]

The Rationale for Requiring the EEL as a Condition for Declining to Unbundle Switching Lacks Clarity

With respect to the EEL, I am certainly persuaded that this functionality (which allows transmission from the CLEC's switch to its customers via the incumbent's facilities) will make it *easier* for CLECs to provide service. But the question the Court has mandated that we answer is not whether access to parts of the incumbent's network makes it easier for CLECs, but whether denial of such access would "impair" CLECs' ability to provide service within the meaning of section 251(d)(2).[7] If a network element satisfies this standard, then the Act requires that we make it available. Our decision today muddies an already complicated analysis. On the one hand, we insist that we cannot mandate the EEL pending the Eighth Circuit's resolution of the appeal of our authority to require combinations of elements. On the other hand, in the face of repeated and well-documented incumbent requests to remove switching as an unbundled element, we provide strong and direct incentives to incumbents to provide the EEL as a condition of such removal. To make matters worse, we do so even though we also conclude that our existing rules permit CLECs

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5 *See, e.g.*, BellSouth Comments at 59.

6 I should add, however, that my belief that declining to unbundle switching in Zone 1 would address many, but not all, of my concerns regarding geographic variations and the impact of those variations on our impairment analysis. By using a broad national approach based on highly-disputed generalities, I still fear that the Commission has failed to pay adequate attention to the Court's instruction that we assess the availability of elements outside the incumbent's network, including self-provisioning. A preferable option would have been to provide some time-limited ability for state commissions that perceive their markets are different to remove elements from the national list, based on a showing consistent with this decision and our existing rules. This authority was advocated by the vast majority of state commenters in this docket. *See, e.g.*, Washington Utilities & Transportation Commission Comments at 2, California Public Utilities Commission Comments at 7, and New York Department of Public Service Comments at 5.

7 *See* 47 U.S.C. §251(d)(2)(B).

to obtain the same functionality as the EEL, at least in many circumstances, by simply converting special access services to network elements. I think the cleaner approach would have been to wait for the Eighth Circuit's combination ruling or simply decide whether the EEL should be made available itself as a network element.

The Impairment Analysis is Based on Faulty Assumptions Regarding CLEC Facilities Deployment

More generally, I believe the impairment analysis we adopt is based on poorly supported, or simply false, assumptions. For example, we assume that the few factors we examine closely (including cost, quality, ubiquity, timeliness, etc.) are sufficient to determine whether a CLEC would be impaired from providing service. Although the analysis purports to consider the totality of circumstances, we focus predominantly on cost. We assign almost no weight to other factors directly relevant to assessing whether a CLEC can become an effective competitor in a particular market or customer segment, such as CLECs' ability to target market and the relative profit potential of serving different types of customers.

The difficulties of this approach become apparent when we look at the facts. CLECs have deployed switches in numerous markets throughout the country. The *Order* suggests that CLECs may be deploying these switches *despite* significant impairment. Yet it is equally possible that the evidence of CLEC switch deployment means that CLECs, *as a general matter,* are not significantly impaired from competing if the incumbent is not forced to unbundle switching. By declining to consider seriously all of the factors relevant to impairment, we render ourselves powerless to demonstrate rigorously which of these two possibilities is reality. I am pleased that we have at least begun to acknowledge that there may be factors other than the few we emphasize that are relevant to the question of impairment. I am disappointed, however, that we cannot admit that evidence of CLEC switch deployment strongly suggests that CLECs are not significantly impaired without access to unbundled switching, both in areas in which CLECs have deployed switches and areas in which they have not done so.

I am also uncomfortable with the extent to which the *Order* suggests that the primary reason CLECs have not deployed in some smaller markets is that they lack adequate access to the incumbent's network. There are other obvious reasons why CLEC deployment has not yet reached some smaller markets. CLECs are profit maximizers and thus it is unremarkable that they first deploy circuit and packet switches in denser areas where they can reach more customers at lower cost. The simple absence of switch deployment in smaller markets tells us precious little. In sum, we don't really know whether CLECs have not deployed in those markets because they are impaired or because they just have found it uneconomical to serve those areas, perhaps for reasons unrelated to UNE availability.

The Impairment Analysis Unnecessarily Imports Collocation and Other Problems That Do Not Result Directly From Denying CLECs Access to UNEs

Finally, I am troubled by the extent to which we are importing into the impairment analysis collocation and other problems that do not result directly from denying CLECs access to UNEs. To the extent collocation is a problem for CLECs hoping to deploy their own switches, for example, it is difficult to argue that this problem results from denying CLECs access to unbundled switching from the incumbent. Rather, in this situation, collocation is its own separate problem, which I would have preferred to address more directly (*e.g.*, through stronger enforcement at the state or federal levels). In addition to my concern that this approach will muddy our impairment analysis, I worry that it will ultimately prove futile. To the extent our collocation rules have been ineffective because they have not been sufficiently detailed or well-enforced, as some have alleged, I fail to see how imposing additional general requirements in the unbundling context will fix the underlying collocation problem. Instead, we may just be layering ineffective rules on top of ineffective rules.

Conclusion

Having said all that, I do generally support most of the remainder of the item, and I commend my colleagues and the Common Carrier Bureau for their diligence and hard work in working through these issues. Despite my misgivings about a few of the bottom lines, I fully recognize that an enormous amount of blood, sweat and tears have gone into the decisions we reach here. (I have cried some of these tears myself.) The Bureau, in particular, is to be commended for bringing us this far in our efforts to grapple with the voluminous and highly-complex record that the parties have developed in this docket.